

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars.

1. Form PTO-892

The applicants respectfully request that U.S. patent no. 1,721,349 (*Mitton*), cited in the body of the Office action, be listed on a form PTO-892 in the next Office communication.

2. In the claims

As shown in the foregoing LIST OF CURRENT CLAIMS, the claims have been amended to more clearly point out the subject matter for which protection is sought.

A. Claim amendments

Claim 1 is amended to incorporate the features of previously dependent claim 5.

Claim 3 is also amended to incorporate the features of previously dependent claim 5, and to clarify that a valve chamber is provided in at least the leading end portion of the adjusting rod.

It is respectfully submitted that no new matter is added since the change merely merges the subject matter of previously presented claims, and support for the change to claim 3 can be found, for example, at least in Fig. 3B of the pending application and, for example, at least in paragraph [0033] of the accompanying description in the specification as originally filed.

Claims 1-4 are also amended to clarify that a cylinder apparatus having a bi-directional flow control valve is claimed. It is respectfully submitted that no new matter is added since support for the change can be found, for example, at least in paragraphs [0001] and [0010] of the accompanying description in the specification as originally filed.

Claim 6 is amended to remove the language regarding the prevention of the working fluid from freely flowing between the leading end of the casing and the bottom wall of the mounting hole, and to include the features of the discharge passage being opened eccentrically in a bottom surface of the mounting hole and a leading end portion of the cylindrical casing is brought into contact with a bottom wall of the mounting hole, so as to partition the actuation port and the pressure port and that the cylindrical casing is screwed into the mounting hole. It is respectfully submitted that no new matter is added, since support for the amendments may be found, for example, at least in Figs. 2B and 3B of the pending application and, for example, at least in paragraphs [0022] and [0031] of the accompanying description in the specification as originally filed.

Claim 5 is canceled and the subject matter thereof added to amended claims 1 and 3.

Claim 7 is canceled.

Entry of the LIST OF CURRENT CLAIMS is respectfully requested in the next Office communication.

**B. Rejection of claims 6 and 7 under 35 U.S.C. § 112 first paragraph**

Reconsideration of this rejection is respectfully requested, in view of the amendment of claim 6 and the cancellation of claim 7, on the basis that the language identified as not complying with the written description requirement has been removed from claim 6. Further, while the space 43 in Fig. 2B allows free flow of the working fluid, the contact between the leading end portion of the cylindrical casing 40 and the bottom wall 31a of the mounting hole, so as to partition the actuation port A1 and the pressure port P1, does indeed prevent the working fluid from flowing through the valve between the actuation port A1 and the pressure port P1, along the outer surface of the cylindrical casing 40. In other words, the working fluid must pass through the internal metering structure of the cylindrical casing 40, in which the space 43 is formed.

Accordingly, withdrawal of this rejection is respectfully requested.

3. Rejection of claims 1-4 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. 1,721,349 (Mitton)

Reconsideration of this rejection is respectfully requested, in view of the amendments to claims 1 and 3, from which claims 2 and 4 respectively depend, on the basis that the *Mitton* patent fails to disclose the features of previous dependent claim 5, which features have been added to amended claims 1 and 3.

Further, applicants submit that independent claims 1 and 3 are patentable and therefore, claims 2 and 4, which respectively depend from claims 1 and 3, are also considered to be patentable as containing all of the elements of claim 1 or 3, as well as for their respective recited features.

Accordingly, withdrawal of this rejection is respectfully requested.

4. Rejection of claims 3, 4, 5 as dependent upon 3 and 4, 6, and 7 under 35 U.S.C. § 102(b) as being anticipated by Japanese publication JP 39-18634 or JP 11347869

Reconsideration of this rejection is respectfully requested, in view of the amendments to claims 3 and 6, and the discussion below.

With regard to amended claim 3, neither of the '634 publication nor the '869 publication disclose a valve chamber provided in at least a leading end portion of the adjusting rod, as is required by amended claim 3 (74, Fig. 3B of the drawings of the pending application as originally filed).

Accordingly, withdrawal of this rejection with respect to amended claim 3 is respectfully requested.

As mentioned above, applicants submit that independent claim 3 is patentable and therefore, claim 4, which depends from claim 3, is also considered to be patentable as containing all of the elements of claim 3, as well as for its respective recited features.

With regard to amended claim 6, neither of the '634 publication nor the '869 publication disclose the discharge passage being opened eccentrically in a bottom

surface of the mounting hole and a leading end portion of the cylindrical casing is brought into contact with a bottom wall of the mounting hole, so as to partition the actuation port and the pressure port.

In accordance with amended claim 6, a number of advantages are achieved. While the discussion of the advantages below pertains to the embodiment shown in Fig. 2B, the advantages are equally applicable to the embodiment shown in Fig. 3B.

When the flow control valve 35 is attached to the mounting hole 31 of the cylinder apparatus, the barrel portion 40a of the cylindrical casing 40 of the flow control valve is screwed/advanced towards the bottom wall 31a of the mounting hole 31. As the barrel portion 40a is advanced, the leading end portion of the cylindrical casing 40 contacts the bottom wall 31a of the mounting hole 31. At this time, as shown in Fig. 2B, since the leading end portion of the cylindrical casing 40 is tapered, when the leading end portion contacts the bottom wall 31a, the leading end portion bites into the bottom wall 31a, or the leading end portion undergoes a small amount of plastic deformation. Thus, the first actuation port A1 and the first pressure port P1 are reliably partitioned by the leading end portion.

Further, as also shown in Fig. 2B, since one end portion (the end portion on the first actuation port A1 side) of the first supply and discharge passage 21 is opened eccentrically in the bottom wall 31a, the area of the upper portion of the bottom wall 31a can be made extremely small. In this case too, the leading end portion of the cylindrical casing 40 reliably contacts the small area portion of the bottom wall 31a. In other words, the claimed configuration reliably partitions the first actuation port A1 and the first pressure port P1, even when there is no space for mounting a sealing member, such as an O-ring, on the bottom wall 31a or the leading end portion of the cylindrical casing 40.

Turning to the '869 publication, it is respectfully submitted that there is no disclosure of the discharge passage being opened eccentrically in a bottom surface of the mounting hole and a leading end portion of the cylindrical casing is brought into contact with a bottom wall of the mounting hole, so as to partition the actuation port and the pressure port, as is required by amended claim 6.

Turning next to the '634 publication, it is also respectfully submitted that there is no disclosure of the discharge passage being opened eccentrically in a bottom surface of the mounting hole and a leading end portion of the cylindrical casing is brought into contact with a bottom wall of the mounting hole, so as to partition the actuation port and the pressure port.

In particular, the passage 7 in the '634 publication is opened in a sidewall of the mounting hole, and not eccentrically in a bottom surface of the mounting hole, as is required by amended claim 6.

Further, the '634 publication does not disclose the nut 14 (acting as a leading end portion) being in contact with the bottom surface of the mounting hole, but instead discloses the nut 14 in a spaced relationship therefrom. Thus, the '634 publication fails to disclose a leading end portion of the cylindrical casing is brought into contact with a bottom wall of the mounting hole, so as to partition the actuation port and the pressure port, as is required by amended claim 6.

Therefore, it is respectfully submitted that neither of the '634 publication nor the '869 publication disclose the discharge passage being opened eccentrically in a bottom surface of the mounting hole and a leading end portion of the cylindrical casing is brought into contact with a bottom wall of the mounting hole, so as to partition the actuation port and the pressure port, as required by amended claim 6.

Accordingly, withdrawal of this rejection with respect to amended claim 6 is respectfully requested.

5. Rejection of claims 1 and 2 under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent no. 602,598 (Fields)

This rejection is rendered moot by the inclusion in amended claim 1 of the indicated allowable subject matter of claim 5.

Accordingly, withdrawal of this rejection is respectfully requested.

6. Rejection of claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Japanese publication JP 39-18634

Reconsideration of this rejection is respectfully requested, in view of the amendments to claim 6, on the basis that the rejection fails to establish a *prima facie* case of obviousness with respect to amended claim 1.

The deficiencies of the '634 publication are discussed above in detail. In particular, even if the outlet 9 is moved to the nut (end cap) 14, the '634 publication still fails to disclose the discharge passage being opened eccentrically in a bottom surface of the mounting hole and a leading end portion of the cylindrical casing is brought into contact with a bottom wall of the mounting hole, so as to partition the actuation port and the pressure port, as required by amended claim 6.

Accordingly, a *prima facie* case of obviousness cannot be established with respect to amended claim 6, and withdrawal of this rejection is respectfully requested.

7. Allowable subject matter

The indication of allowable subject matter in dependent claim 5 is gratefully acknowledged. Accordingly, the features of claim 5 have been added to independent claims 1 and 3.

8. Conclusion

As a result of the amendment to the claims, and further in view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that every pending claim in the present application be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the applicants' attorney, the examiner is invited to contact the undersigned at the numbers shown below.

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Respectfully submitted,  
  
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